

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.:

09/494,213

Filing Date:

January 24, 2000

Applicant:

Michael A. Martinelli et al.

Group Art Unit:

3737

Examiner:

Shawna J. Shaw

Title:

METHOD AND SYSTEM FOR NAVIGATING

A CATHETER PROBE

Attorney Docket:

5074A-000032/COB

Director of the United States Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450

#### SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Sir:

Pursuant to 37 C.F.R. §§ 1.56, 1.97 and 1.98, Applicant hereby submits an Information Disclosure Statement for consideration by the Examiner.

## I. <u>LIST OF PATENTS, PUBLICATIONS, AND OTHER INFORMATION</u>

The patents, publications and other information requested to be considered by the Office (except unpublished U.S. patent applications) are listed on Form 1449 attached hereto.

### II. COPIES

A. Submitted herewith is a legible copy of (i) each foreign patent; (ii) each publication or that portion which caused it to be listed, other than U.S. patents and U.S. patent application publications unless required by the Office; (iii) each unpublished U.S. application listed below in Section IV (i.e., including the specification, claims, and any drawing of the application, or that portion of the application which caused it to be listed, including any claims directed to that portion), except for such applications filed on or after June 30, 2003, pursuant to the Waiver of the Copy Requirement in 37 C.F.R. 1.98 (OG Notice dated October 19, 2004); and (iv) all other information or that portion which caused it to be listed.

B. Any patents, publications or other information which are listed on Form 1449 or on the copies of PTO-892, but which are not enclosed herewith, were previously cited by or submitted to the PTO in one of the following applications which has been relied upon for an earlier filing date under 35 U.S.C. § 120: U.S. Serial Number U.S. Filing Date 09/231,854 January 14, 1999 C. This is a PCT application in the entry of the National Phase in the United States. A copy of the International Search Report is attached for the Examiner's information. The documents listed on the International Search report are listed on the attached Form 1449 for consideration by the Examiner and for listing on any patent resulting from this application. If the International Search report was from the US, EPO, or JPO search authorities, copies of these references should have been supplied to the USPTO under the trilateral agreement and are believed to be in the file of the above-identified application. (MPEP 1893.03(g).) CONCISE EXPLANATION OF THE RELEVANCE (check at least one box) A. Except as may be indicated below in (B), all of the patents, publications or other information are in the English language (concise explanation not required). B. A concise explanation of the relevance of each patent, publication or other information listed that is not in the English language is as follows (see 37 C.F.R. § 1.98(a)(3)): 1. See the attached foreign patent office communication from a counterpart foreign application: 2. English translations are provided: 3. X Other: Japanese Reference JP 2765738 appears to disclose a catheter that may be positioned relative to a selected site to produce a signal to create a data set. German Reference DE 3042343 appears to disclose a system operable to receive a signal regarding a point in space. European Reference EP 0 581 704 has a U.S. equivalent of U.S. Patent

No. 5,447,154.

III.

France Reference No. 2417970 has a U.S. equivalent of U.S. Patent No. 4,418,422.

German Reference No. DE 10085137 has a U.S. equivalent of U.S. Patent No. 6,499,488.

An English abstract is provided for Other Document reference No. 11 by Champleboux, entitled "Utilisation de Fonctions Splines pour la Mise au Point D'un Capteur Tridimensionnel sans Contact," Quelques Applications Medicales, July 1991.

An English language abstract is provided for Other Document reference No. 50 by Lavallee, entitled "VI Adaption de la Methodologie a Quelques Applications Cliniques," Chapitre VI, pp. 133-148.

An English language abstract is provided for Other Documents reference No. 55 by, Mazier et al., entitled Chirurgie de la Colonne Vertebrale Assistee par Ordinateur: Application au Vissage Pediculaire, Innov. Tech. Biol. Med., Vol. 11, No. 5, 1990, pp. 559-566.

Other Documents reference No. 66, by Sautot, entitled "Vissage Pediculaire Assiste Par Ordinateur" appears to disclose a fluoroscopic image guidance and system.

Other Documents reference No. 75 by Watanabe, "Neuronavigator," Igaku-no-Ayumi, Vol. 137, No. 6, May 10, 1986, pp. 1-4, an English translation is provided.

C.		The	following	additional	information	is	provided	for	the	Examiner's
con	sid	eratio	n.				•			

IV.	CROSS REFERENCE	TION(S)						
	A. The Examiner is advised that the following co-pending application(s) contain(s) subject matter that may be related to the present application. By bringing this(these) application(s) to the Examiner's attention, Applicant(s) does (do) not waive the confidentiality provisions of 35 U.S.C. § 122.							
	Serial No.	Filing Date	Art Unit					
		,						
V.	THIS IDS IS BEING F	ILED UNDER						
	A. [] 37 C.F.R. § 1.97	<b>7(b):</b> (check <u>only</u> one box)						
1. within three months of the filing date of a national application than a continued prosecution application under § 1.53(d) (37 C.1.1.97(b)(1)). No fee or certification is required.								
	forth in § 1.491	2.  within three months of the date of entry of the national stage as set forth in § 1.491 in an international application (37 C.F.R. § 1.97(b)(2)). No fee or certification is required.						
	1.97(b)(3)). N Office Action of under 37 C.F.I 1.97(e) below;	o fee or certification is roon the merits has been R. § 1.97(c) and see the or, if no certification has	Action on the merits (37 equired. In the event the issued, please consider e certification under 37 (as been made, charge our as required by 37 C.F.R. §	at a first this IDS C.F.R. § deposit				
	4. Defore the for continued e is required.	e mailing of a first Office xamination under 37 C.F.	Action after the filing of a R. § 1.114. No fee or cer	request tification				
	В. <b>З7 С.F.R. § 1.9</b> 7	<b>7(c):</b> (check <u>only</u> one box)	ı					
		e of Allowance under 37	al Office Action under 37 of C.F.R. § 1.311, or an ac					
	1. ⊠ No certifion by 37 C.F.R. §		the amount of \$180.00 is	required				
	2. See the c	ertification below. No fee	is required.					

	C. 37 C.F.R. § 1.97(d):
	after the mailing date of either a Final Office Action under 37 C.F.R. § 1.113 or a Notice of Allowance under 37 C.F.R. § 1.311, yet on or before payment of the issue fee.
	1. See the certification below. A fee in the amount of \$180.00 is required by 37 C.F.R. § 1.17(p).
VI.	CERTIFICATION UNDER 37 C.F.R. § 1.97(e): (check only one box)
	The undersigned hereby certifies that:
	A. $\square$ each item of information contained in this IDS was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this IDS (See 37 C.F.R. § 1.97(e)(1)). See further statement under 37 C.F.R. 1.704(d) below in section VII, if applicable; or
	B.  no item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned after making reasonable inquiry, no item of information contained in this IDS was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this IDS (See 37 C.F.R. § 1.97(e)(2)).
	C. some of the items of information were first cited in a communication from a foreign patent office. As to this information, the undersigned hereby certifies that each item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this IDS. As to the remaining information, the undersigned hereby certifies that no item of this remaining information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned after making reasonable inquiry, no item of information contained in this IDS was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this IDS.
VII.	STATEMENT UNDER 37 C.F.R. 1.704(d)
	The undersigned hereby states that:
	each item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart application and this communication was not received by any individual designated in 37 C.F.R. § 1.56(c) more than thirty days prior to the filing of this IDS.

### VIII. PAYMENT OF FEES (check only one box)

- A. A check in the amount of \$180.00 is enclosed for the above identified fee.
- B. Please charge Deposit Account No. 08-0750 in the amount of \$180.00 for the above-indicated fee. A duplicate copy of this paper is attached.

The above references are being cited only in the interest of candor and without any admission that they constitute statutory prior art, contain matter which anticipates the invention, or which would render the same obvious, either singly or in combination, to a person of ordinary skill in the art. Furthermore, this Information Disclosure Statement shall not be construed as a representation that a search has been made.

If it is determined that this IDS has been filed under the wrong rule, the PTO is requested to consider this IDS under the proper rule (with a petition if necessary) and charge the appropriate fee to Deposit Account No. 08-0750.

Please charge any additional fees or credit any overpayment pursuant to 37 C.F.R. § 1.16 or § 1.17 to Deposit Account No. 08-0750.

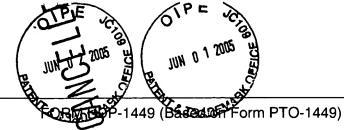
Respectfully submitted,

Dated: <u>June 1, 2005</u>

Richard W. Warner Reg. No. 38,043

Harness, Dickey & Pierce, P.L.C. P.O. Box 828 Bloomfield Hills, Michigan 48303 (248) 641-1600

RWW/MLT/cn/jb



# PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE CITATION

(Use several sheets if necessary)

Sheet 1 of 19

ATTORNEY DOCKET NO.	SERIAL NO.				
5074A-000032/COB	09/494,213				
APPLICANT					
Michael A. Martinelli et al.					
FILING DATE	GROUP				
January 24, 2000	3737				

U.S. P	U.S. PATENT DOCUMENTS						
Ref. Desig.	Examiner's Initials	Document Number	Date	Name	Class/ Subclass	(If appropriate) Filing Date	
1.		1,576,781	03/1926	Phillips			
2.		1,735,726	11/1929	Bornhardt			
3.		2,407,845	09/1946	Nemeyer			
4.		2,650,588	09/1953	Drew			
5.		2,697,433	12/1954	Sehnder			
6.		3,016,899	01/1962	Stenvall			
7.		3,017,887	01/1962	Heyer			
8.		3,061,936	11/1962	Dobbeleer			
9.		3,073,310	01/1963	Mocarski			
10.		3,294,083	12/1966	Alderson			
11.		3,367,326	02/1968	Frazier			
12.		3,577,160	05/1971	White			
13.		3,702,935	11/1972	Carey et al.			
14.		3,704,707	12/1972	Halloran			
15.		3,941,127	03/1976	Froning			
16.		4,037,592	07/1977	Kronner			
17.		4,052,620	10/1977	Brunnett			
18.		4,117,337	09/26/1978	Staats			
19.		4,202,349	05/1980	Jones			
20.		4,328,813	05/1982	Ray			
21.		4,358,856	11/09/1982	Stivender et al.			

Examiner:	Date Considered:

## PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE CITATION

(Use several sheets if necessary)

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APPLICANT				
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U.S. F	U.S. PATENT DOCUMENTS					
Ref. Desig.	Examiner's Initials	Document Number	Date	Name	Class/ Subclass	(If appropriate) Filing Date
22.		4,368,536	01/1983	Pfeiler		
23.		4,403,321	09/1983	DiMarco		
24.		4,418,422	11/1983	Richter et al.		
25.		4,485,815	12/1984	Amplatz		
26.		4,543,959	10/01/1985	Sepponen		
27.		4,548,208	10/22/1985	Niemi		
28.		4,621,628	11/1986	Bludermann		
29.		4,625,718	12/1986	Olerud et al.		
30.		4,645,343	02/1987	Stockdale et al.		
31.		4,651,732	03/24/1987	Frederick		
32.		4,653,509	03/1987	Oloff et al.		
33.		4,673,352	06/1987	Hansen		
34.		4,706,665	11/17/1987	Gouda		
35.		4,722,056	01/26/1988	Roberts et al.		
36.		4,722,336	02/1988	Kim et al.		
37.		4,727,565	02/23/1988	Ericson		
38.		4,737,921	04/12/1988	Goldwasser et al.		
39.		4,750,487	06/1988	Zanetti		
40.		4,771,787	09/20/1988	Wurster et al.		
41.		4,791,934	12/20/1988	Brunnett		

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U.S. F	U.S. PATENT DOCUMENTS					
Ref. Desig.	Examiner's Initials	Document Number	Date	Name	Class/ Subclass	(If appropriate) Filing Date
42.		4,793,355	12/1988	Crum et al.		
43.		4,797,907	01/1989	Anderton		
44.		4,803,976	02/1989	Frigg et al.		
45.		4,821,206	04/11/1989	Arora		
46.		4,845,771	07/1989	Wislocki et al.		
47.		4,889,526	12/26/1989	Rauscher et al.		
48.		4,923,459	05/1990	Nambu		
49.		4,931,056	06/1990	Ghajar et al.		
50.		4,945,914	08/1990	Allen		
51.		4,951,653	08/1990	Fry et al.		
52.		5,013,317	05/1991	Cole et al.		
53.		5,027,818	07/02/1991	Bova et al.		
54.		5,030,196	07/09/1991	Inoue		
55.		5,030,222	07/1991	Calandruccio et al.		
56.		5,031,203	07/1991	Trecha		
57.		5,057,095	10/15/1991	Fabian		
58.		5,079,699	01/07/1992	Tuy et al.		
59.		5,094,241	03/10/1992	Allen		
60.		5,097,839	03/24/1992	Allen		
61.		5,107,839	04/28/1992	Houdek et al.		

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U.S. P	U.S. PATENT DOCUMENTS					
Ref. Desig.	Examiner's Initials	Document Number	Date	Name	Class/ Subclass	(If appropriate) Filing Date
62.		5,107,843	04/1992	Aarnio, et al.		
63.		5,107,862	04/28/1992	Fabian et al.		
64.		5,119,817	06/09/1992	Allen		
65.		5,142,930	09/01/1992	Allen et al.		
66.		5,160,337	11/1992	Cosman		
67.		5,178,164	01/12/1993	Allen		
68.		5,178,621	01/1993	Cook et al.		
69.		5,186,174	02/1993	Schlondorff et al.		
70.		5,188,126	02/23/1993	Fabian et al.		
71.		5,190,059	03/02/1993	Fabian et al.		
72.		5,197,965	03/1993	Cherry et al.		
73.		5,211,176	05/1993	Ishiguro et al.		
74.		5,212,720	05/1993	Landi et al.		
75.		5,219,351	06/1993	Teubner et al.		
76.		5,233,990	08/1993	Barnea		
77.		5,251,127	10/1993	Raab		
78.		5,291,199	03/01/1994	Overman et al.		
79.		5,305,091	04/1994	Gelbart et al.		
80.		5,305,203	04/1994	Raab		
81.		5,320,111	06/1994	Livingston		

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U.S. P	U.S. PATENT DOCUMENTS					
Ref. Desig.	Examiner's Initials	Document Number	Date	Name	Class/ Subclass	(If appropriate) Filing Date
82.		5,325,728	07/05/1994	Zimmerman et al.		
83.		5,329,944	07/19/1994	Fabian et al.		
84.		5,333,168	07/1994	Fernandes et al.		
85.		5,353,800	10/11/1994	Pohndorf et al		
86.		5,353,807	10/11/1994	DeMarco		
87.		5,394,457	02/1995	Leibinger et al.		
88.		5,397,329	03/1995	Allen		
89.		5,399,146	03/21/1995	Nowacki et al.		
90.		5,400,384	03/1995	Fernandes et al.		
91.		5,423,334	06/13/1995	Jordan		
92.		5,426,683	06/1995	O'Farrell, Jr., et al.		
93.		5,426,687	06/1995	Goodall et al.		
94.		5,427,097	06/1995	Depp		
95.		5,427,367	06/20/1995	Shapiro et al.		
96.		5,444,756	08/1995	Pai et al.		
97.		5,446,548	08/1995	Gerig et al.		
98.		5,447,154	09/05/1995	Cinquin et al.		
99.		5,448,610	09/1995	Yamamoto et al.		
100.		5,458,718	10/17/1995	Venkitachalam		
101.		5,464,446	11/1995	Dreessen et al.		

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# PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE CITATION

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U.S. PATENT DOCUMENTS						
Ref. Desig.	Examiner's Initials	Document Number	Date	Name	Class/ Subclass	(If appropriate) Filing Date
102.		5,478,341	12/1995	Cook et al.		
103.		5,478,343	12/1995	Ritter		
104.		5,490,196	02/06/1996	Rudich et al.		
105.		5,494,034	02/27/1996	Schlondorff et al.		
106.		5,503,416	04/1996	Aoki et al.		
107.		5,515,160	05/07/1996	Schulz et al.		
108.		5,531,227	07/02/1996	Schneider		
109.		5,531,520	07/02/1996	Grimson et al.		
110.		5,543,951	08/06/1996	Moehrmann	•	
111.		5,551,429	09/1996	Fitzpatrick et al.		
112.		5,575,794	11/1996	Walus et al.		
113.		5,583,909	12/1996	Hanover		
114.		5,595,193	01/1997	Walus et al.		
115.		5,596,228	01/1997	Anderton et al.		
116.		5,617,462	04/1997	Spratt		
117.		5,619,261	04/1997	Anderton		
118.		5,627,873	05/1997	Hanover et al.		
119.		5,628,315	05/13/1997	Vilsmeier et al.		
120.		5,636,644	06/10/1997	Hart et al.		
121.		5,638,819	06/17/1997	Manwaring et al.		

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U.S. F	U.S. PATENT DOCUMENTS					
Ref. Desig.	Examiner's Initials	Document Number	Date	Name	Class/ Subclass	(If appropriate) Filing Date
122.		5,642,395	06/1997	Anderton et al.		
123.		5,643,268	07/01/1997	Vilsmeier et al.		
124.		5,664,001	09/1997	Tachibana et al.		
125.		5,674,296	10/07/1997	Bryan et al.		
126.		5,681,260	10/28/1997	Ueda et al.		
127.		5,682,886	11/04/1997	Delp et al.		
128.		5,690,108	11/1997	Chakeres		
129.	-	5,695,501	12/09/1997	Carol et al.		
130.		5,697,377	12/16/1997	Wittkampf		
131.		5,702,406	12/30/1997	Vilsmeier et al.		
132.		5,711,299	01/27/1998	Manwaring et al.		
133.		5,715,822	02/10/1998	Watkins		
134.		5,715,836	02/10/1998	Kliegis et al.		
135.		5,727,552	03/17/1998	Ryan		
136.		5,727,553	03/17/1998	Saad		
137.		5,730,130	03/1998	Fitzpatrick et al.		
138.		5,735,278	04/07/1998	Hoult et al.		
139.		5,742,394	04/1998	Hansen		
140.		5,744,953	04/28/1998	Hansen		
141.		5,748,767	05/1998	Raab		

Examiner:	Date Considered:

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U.S. P	ATENT DO	CUMENTS				
Ref. Desig.	Examiner's Initials	Document Number	Date	Name	Class/ Subclass	(If appropriate) Filing Date
142.		5,749,835	05/12/1998	Glantz		
143.		5,755,725	05/26/1998	Druais		
144.		5,767,669	06/16/1998	Hansen et al.		
145.		5,769,789	06/23/1998	Wang et al.		
146.		5,769,861	06/23/1998	Vilsmeier		
147.		5,772,594	06/1998	Barrick		
148.		5,775,322	07/07/1998	Silverstein et al.		
149.		5,782,765	07/21/1998	Jonkman		
150.		5,792,055	08/11/1998	McKinnon		
151.		5,795,294	08/18/1998	Luber et al.		
152.		5,797,849	08/1998	Vesely et al.		
153.	_	5,799,055	08/1998	Peshkin et al.		
154.		5,799,099	08/1998	Wang et al.		
155.		5,800,535	09/01/1998	Howard, III		
156.		5,802,719	09/1998	O'Farrell, Jr., et al.		
157.		5,807,252	9/15/1998	Hassfeld et al.		
158.		5,810,735	09/22/1998	Halperin et al.		
159.		5,823,192	10/1998	Kalend et al.		
160.		5,823,958	10/20/1998	Truppe		
161.		5,828,725	10/27/1998	Levinson		

Examiner:	Date Considered:
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U.S. P	ATENT DO	CUMENTS				
Ref. Desig.	Examiner's Initials	Document Number	Date	Name	Class/ Subclass	(If appropriate) Filing Date
162.		5,834,759	11/10/1998	Glossop		
163.		5,843,076	12/1/1998	Webster, Jr. et al.		
164.		5,848,967	12/15/1998	Cosman		
165.		5,865,846	02/02/1999	Bryan et al.		
166.		5,868,675	02/09/1999	Henrion et al.		
167.		5,871,455	09/1999	Ueno		
168.		5,871,487	02/16/1999	Warner et al.		
169.		5,884,410	03/1999	Prinz		
170.		5,891,157	04/06/1999	Day et al.		
171.		5,904,691	05/18/1999	Barnett et al.		
172.		5,907,395	05/1999	Schultz et al.		
173.		5,921,992	07/13/1999	Costales et al.		
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175.		5,928,248	7/27/1999	Acker		
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